

METHOD FOR IMPLEMENTING POLYINSTANTIATED ACCESS CONTROL IN COMPUTER OPERATING SYSTEMS

ABSTRACT OF THE DISCLOSURE

A master daemon (a dedicated program component) is provided for a computer operating system which utilizes selected criteria to perform actions in one or more domains, as defined. The master daemon provides application program interfaces (APIs or facilities) and monitors all requests (for which the master daemon is configured) directed to the associated computing base including the operating system. All requests are in the form of encapsulated information as defined. In general, the master daemon, in response to such requests, performs the actions, each constrained to operate exclusively in a single domain. Selected criteria that may be contained in encapsulated information may define a higher-order multidimensional domain space for segregating system operational functionality according to configured boundaries. Multiple instances of actions may exist simultaneously in the same domain in the associated computing base, with the master daemon performing the actions for each request as required in each selected domain. According to a specific embodiment, as prompted by limitations in a purportedly multilevel secure operating system normally directly responsive to autonomous daemons, security is improved through an augmentation applied to the operating system in the form of a master daemon and operative according to a method for controlling access to domains. More specifically, a domain may be configured using constructs of security labels and other criteria.

PA 3075170 v1:KRA:dim

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